We Claim:

1. A method of treating a malignant tumor cancer comprising administering to a subject at least one *Perna canaliculus* or *Mytilus edulis* mussel component which exhibits cytotoxicity to malignant tumor cells.

2. The method of claim 1, wherein the cancer treated is leukemia, osteosarcoma, cervical cancer, kidney tumors, monocytic leukemia, prostrate cancer, estrogen dependent or non-estrogen dependent breast cancer, melanoma, or bladder cancer, in a human.

3. The method of claim 1, wherein the cancer treated is leukemia, osteosarcoma, cervical cancer, kidney tumors, or monocytic leukemia in a human.

4. The method of claim 1, wherein the at least one *Perna canaliculus* or *Mytilus edulis* mussel component is provided as freeze-dried ground whole mussel.

5. The method of claim 1, wherein the at least one *Perna canaliculus* or *Mytilus edulis* mussel component is provided as an extract from freeze-dried ground whole mussel.

6. The method of claim 1, wherein the at least one *Perna canaliculus* or *Mytilus edulis* mussel component is provided as an extract from freeze-dried ground whole mussel extracted with a polyoxyethylene sorbitan ester non-ionic surfactant.

7. The method of claim 6, wherein the extract is purified by ultrafiltration to remove materials of a size less than 100 kD.

8. The method of claim 6, wherein the extract is purified by ultrafiltration to remove materials of a size less than 300 kD.

9. The method of claim 6, wherein the extract is purified by ultrafiltration to remove materials of a size less than 100 kD and materials of a size more than 300 kD.

10. The method of claim 6, wherein the extract is treated with an agent providing OH^- ions such that it has a basic pH.

11. The method of claim 6, wherein the extract has a pH in the range from above 7 to 9.

12. The method of claim 1, wherein the component is a *Perna canaliculus* mussel component.

13. A composition which comprises an extract of freeze-dried ground whole *Perna canaliculus* or *Mytilus edulis* mussel which has been extracted with a polyoxyethylene sorbitan ester non-ionic surfactant.

14. The composition of claim 13, wherein the composition has been purified by ultrafiltration to remove materials of a size less than 100 kD.

15. The composition of claim 13, wherein the composition has been purified by ultrafiltration to remove materials of a size less than 300 kD.

16. The composition of claim 13, wherein the composition has been purified by ultrafiltration to remove materials of a size less than 100 kD and materials of a size more than 300 kD.

17. The composition of claim 13, wherein the composition has a basic pH.

18. The composition of claim 13, wherein the composition has a pH in the range from above 7 to 9.

19. A method for preparing an extract containing at least one component of *Perna canaliculus* or *Mytilus edulis* mussel which comprises:

providing an aqueous solution of the ground freeze-dried whole mussel with a polyoxyethylene sorbitan ester non-ionic surfactant, as extracting agent,

agitating the mixture,

centrifuging the mixture,

then decanting one or more times to obtain the liquid portion, as the extract, and

optionally, filtering one or more times to remove small solids remaining in the liquid portion extract.

20. The method of claim 19, further comprising filter sterilizing the extract by passing it through a filter of a size sufficient to remove all forms of any living organism, including spores.

21. The method of claim 19, further comprising subjecting the extract to ultrafiltration to remove components of a particular size range.

22. The method of claim 19, further comprising subjecting the extract to ultrafiltration to remove components of a size less than 100 kD.

23. The method of claim 19, further comprising subjecting the extract to ultrafiltration to remove components of a size less than 300 kD.

24. The method of claim 19, further comprising subjecting the extract to ultrafiltration to remove components of a size less than 100 kD and components of a size more than 300 kD.

25. The method of claim 19, further comprising treating the extract with an agent providing OH^- ions to increase its pH.

26. The method of claim 25, wherein the pH is increased to a pH in the range from above 7 to 9.